

REMARKS

This paper is being presented in response to the Office Action dated June 4, 2004, wherein claims 1-39 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng U.S. Patent No. 6,360,131 ("Cheng") in view of official notice taken by the Examiner. Reconsideration and withdrawal of the rejections are respectfully requested in view of the following remarks.

I. The 35 U.S.C. §103(a) Rejection is Traversed

Claims 1-39 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cheng in view of official notice taken by the Examiner. Applicants respectfully traverse these rejections, and the assertions and determinations therein, for at least the following reasons. Applicants respectfully request reconsideration and withdrawal of these rejections.

Each of independent claims 1, 11, 22, and 29, recites, in part, the determination of an execution rate for either control logic (claim 1) or of a control block (claims 11, 22, and 29). In contrast, the cited portions of Cheng describe a process controller that uses a multi-function approach to address large production configuration changes caused by, for instance, a batch switch. In that approach, a multi-function advisor saves controller parameter settings on a batch-by-batch basis. See, for example, Cheng, col. 4, lines 38-43. The multi-function advisor saves the estimated settings for each batch, and then downloads, or selects, the proper parameter settings based on the batch changes. See Cheng, col. 4, lines 38-44.

In this manner, Cheng describes a controller similar in approach to the multiple model application described by Applicants in the "Description of Related Art" section of the present application. In each case, the controller switches between multiple control models or definitions, one for each expected region (or batch) of process operation.

Reference is made by the Examiner to the portions of Cheng describing an anti-delay function (col. 4, lines 1-2), a process time constant (col. 4, lines 21-30; col. 6, lines 31-32), and process delay time (col. 4, lines 21-30; col. 5, lines 30-35). Each of these portions is directed to a different parameter, variable, or function used by the control. See Cheng equations (1) and (7). For instance, the process delay time is

defined as a travel distance divided by the traveling speed. See Cheng, col .5, lines 30-38. Each of these parameters is re-estimated for each batch, resulting in a new control equation available for selection by the multi-function advisor. See Cheng, col. 4, lines 38-44. In short, Cheng teaches how to estimate various parameters for a multi-function control, rather than determining an execution rate for a control utilizing such parameters.

Applicants note that Cheng acknowledges that changes in production speed, or process delay, can make the process more difficult to control. However, knowledge of the change in production speed or process delay led Cheng to a multi-function solution – a solution that Applicants wish to avoid, as expressly noted in the present application. Moreover, even if the “process delay time” parameter identified by Cheng could be said to be related to the time taken to reach a steady state, Cheng still fails to teach (i) the calculations or determinations necessary to determine a control logic execution rate from the time taken to reach a steady state, and (ii) why it would be desirable to do so, namely that the execution rate can be used to address production speed changes and other significant changes to process dynamics.

For these reasons, Applicants respectfully submit that Cheng fails to teach or suggest a determination of an execution rate, as recited in claims 1, 11, 22, and 29.

Applicants further note that the official notice taken by the Examiner is related to an acknowledgement that Cheng does not teach a processor or a computer readable memory. As a result, the official notice also fails to cure the deficiency of Cheng.

For at least the reasons set forth above, it is respectfully submitted that Cheng fails to disclose or suggest every element of independent claims 1, 11, 22, and 29. It follows that claims 1, 11, 22, and 29, and, by implication, those claims dependent thereon, are patentable over the cited reference.

For at least the reasons set forth above, Applicants respectfully request allowance of the claims at issue, namely claims 1-39.

II. Conclusion

Applicants have now made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request reconsideration and allowance of claims 1-39.

Although Applicants believe that no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 13-2855 of Marshall, Gerstein & Borun LLP. In addition, if a petition for an extension of time under 37 CFR 1.136(a) is necessary to maintain the pendency of this case and is not otherwise requested in this case, Applicants request that the Commissioner consider this paper to be a request for an appropriate extension of time and hereby authorize the Commissioner to charge the fee as set forth in 37 CFR 1.17(a) corresponding to the needed extension of time to Deposit Account No. No. 13-2855 of Marshall, Gerstein & Borun LLP. A copy of this paper is enclosed herewith.

If there are matters that can be discussed by telephone to further the prosecution of this application, Applicants respectfully request that the Examiner call their attorney at the number listed below.

Respectfully submitted,

BLEVINS, ET AL.

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